

3 an array waveguide having channels internally, the array waveguide  
4 positioned adjacent to the termination block; and

5 two pins each partially extending into both the termination block and the  
6 array waveguide, wherein the termination block comprises two retainers having  
7 etched grooves in them, and the two pins extend into holes formed by placing  
8 the two etched grooves of the two retainers together, and wherein the  
9 termination block and the array waveguide are bonded together by an epoxy.

1 3. (Amended) The device of claim 1, wherein the array waveguide has two holes  
2 formed by an etch process.

1 4. (Amended) The device of claim 1 further comprising  
2 a gel dispensed between the termination block and the array waveguide.

1 5. The device of claim 4, wherein the gel has an index of refraction substantially  
2 similar to that of the channels of the array waveguide.

1 6. (Amended) A method of aligning a fiber optic bundle with an array waveguide  
2 comprising:

3 inserting pins into holes formed in both the fiber optic bundle and the array  
4 waveguide, wherein the holes formed in the fiber optic bundle are formed by  
5 placing two etched substrates together; and

6 pressing the fiber optic bundle and the array waveguide together so that the  
7 pins extend into both the fiber optic bundle and the array waveguide.

1 7. The method of claim 6 further comprising:

2 Sub 7.1  
B1 finely aligning optical fibers in the fiber optic bundle with channels of the  
3 array waveguide.

1 8. The method of claim 7 further comprising:

2 applying an epoxy to bond the fiber optic bundle to the array waveguide.

1 9. The method of claim 8 further comprising:

2 dispensing an optical gel between the fiber optic bundle and the array  
3 waveguide.

1 10. The method of claim 9, wherein the optical gel has an index of refraction  
2 substantially similar to channels in the array waveguide.

1 11. The method of claim 10 further comprising:

2 curing the epoxy while maintaining alignment between the optical fibers and  
3 the channels of the array waveguide.

1 12. (Amended) A method of aligning a fiber optic bundle with an array  
2 waveguide comprising:

3 coarsely aligning the fiber optic bundle with the array waveguide by

4 inserting two pins into holes formed in an end of the fiber optic bundle,

5 wherein the holes formed in the fiber optic bundle are formed by placing two  
6 etched substrates together,

7 inserting opposite ends of the two pins into the array waveguide, and

8 pressing the fiber optic bundle and the array waveguide together, and

9 finely aligning the fiber optic bundle with the array waveguide by adjusting  
10 the fiber optic bundle and the array waveguide to improve photonic coupling  
11 between optical fibers of the fiber optic bundle and channels of the array  
12 waveguide.

1 14. (Amended) The method of claim 12 further comprising:  
2 dispensing an epoxy between the fiber optic bundle and the array waveguide.

*B1*  
1 15. The method of claim 14, wherein the dispensing the epoxy is performed by  
2 dispensing an epoxy having an index of refraction substantially similar to the channels  
3 of the array waveguide.

*Sub 7*  
1 16. (New) The method of claim 6, wherein the two etched substrates are placed  
2 together to form multiple holes, and the multiple holes are filled by optical fibers except  
3 for the holes with the pins inserted in them.

1 17. (New) The method of claim 12, wherein the two etched substrates are placed  
2 together to form multiple holes, and the multiple holes are filled by optical fibers except  
3 for the holes with the pins inserted in them.